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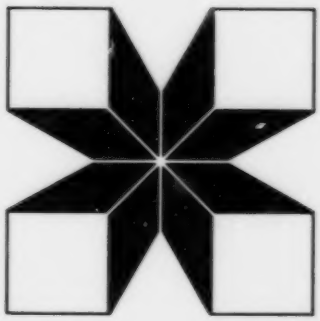

CANADA

DISSEMINATION OF RESEARCH RESULTS

A CASE STUDY OF WRITTEN DOCUMENTS BASED ON THE PRODUCER'S PERCEPTION OF THE USER'S NEEDS IN SOUTH-EAST ASIA

GEORGES HÉNAULT

The International Development Research Centre is a public corporation created by the Parliament of Canada in 1970 to support research designed to adapt science and technology to the needs of developing countries. The Centre's activity is concentrated in six sectors: agriculture, food and nutrition sciences; health sciences; information sciences; social sciences; earth and engineering sciences; and communications. IDRC is financed solely by the Parliament of Canada; its policies, however, are set by an international Board of Governors. The Centre's headquarters are in Ottawa, Canada. Regional offices are located in Africa, Asia, Latin America, and the Middle East.

Le Centre de recherches pour le développement international, société publique créée en 1970 par une loi du Parlement canadien, a pour mission d'appuyer des recherches visant à adapter la science et la technologie aux besoins des pays en développement; il concentre son activité dans six secteurs : agriculture, alimentation et nutrition; information; santé; sciences sociales; sciences de la terre et du génie et communications. Le CRDI est financé entièrement par le Parlement canadien, mais c'est un Conseil des gouverneurs international qui en détermine l'orientation et les politiques. Établi à Ottawa (Canada), il a des bureaux régionaux en Afrique, en Asie, en Amérique latine et au Moyen-Orient.

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This series includes meeting documents, internal reports, and preliminary technical documents that may later form the basis of a formal publication. A Manuscript Report is given a small distribution to a highly specialized audience.

La présente série est réservée aux documents issus de colloques, aux rapports internes et aux documents techniques susceptibles d'être publiés plus tard dans une série de publications plus soignées. D'un tirage restreint, le rapport manuscrit est destiné à un public très spécialisé.

Esta serie incluye ponencias de reuniones, informes internos y documentos técnicos que pueden posteriormente conformar la base de una publicación formal. El informe recibe distribución limitada entre una audiencia altamente especializada.

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DISSEMINATION OF RESEARCH RESULTS

A case study of written documents based on the producer's perception of the user's needs in South-East Asia

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This report is based predominantly on interviews conducted in Ottawa and in the field. Hopefully it reflects the experience and perceptions of experts from IDRC, both at the headquarters and in Singapore, as well as from various research project teams located in South East Asia and the Indian Continent.

Special appreciation is extended to all of them for the availability, frankness and invaluable knowledge they have so nicely shared with me.

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Needless to say, I bear the entire responsibility for any inaccuracies and/or shortcomings in this paper.

G. Hénault

Introduction

The dissemination of research results (D.R.R.), has long been a recognized vital step of the research life cycle. Consequently the D.R.R., that is the process of communicating information about a research project to those people and organizations who require it, has become a major preoccupation of funding agencies. The relevance of this process increased when it was realized that in practice, the dissemination of research results to other organizations and the utilization of research results in decision-making tends to be low. It was noticed that in fact "very little of the research which is conducted in South East Asia is disseminated beyond the institution where it was conducted" (S. Gopinathan and H. Nielsen, 1988, page 21). Furthermore, "much of the formal research conducted for these (educational) projects did not contribute to decision making" (W. Cummings, 1986), or that very little of the research produced is used in policy making (S. Gopinathan and H. Nielsen, 1988, p. 22). These two diagnosis relate to the field of education, however the discussions we had with officers of IDRC and professionals in South East Asia would tend to confirm its applicability to other research areas such as agriculture.

The use of information, an obvious prerequisite to decision making, is made possible if and only if the D.R.R. process has taken place on the one hand, and if it is based on the various users' needs on the other. Given this premise, the present study is based on the following postulate: taking into account the a priori expectations of the users of the results of the research project should increase the propensity of its dissemination to be more efficient and effective. The consideration of users expectations at the levels of format, access, cost and publicity should produce research results which reach more potential users in a useful and relevant manner. In principle, this should enhance the impact which the research results have on the development process.

The present study is based on the experience which several research groups and institutions, financed by IDRC, have had with the dissemination of research results. Exploratory in nature, this case study does not intend to provide statistically significant data; rather it is designed to provoke and encourage further inquiry into the area of the D.R.R. Despite the small sample size of this study, inherent to the case approach methodology, it is hoped that the findings will be useful as the basis of further investigation.

I Objectives of the case study

1.To identify the specific components and successes of the present D.R.R. strategies facing various uncontrollable variables in the South East Asian environment;

2. To assess the attitude of research institutions vis-a-vis building their D.R.R. strategies based on user's needs.

The experimental design and analysis of the case study will help in the identification of the main controllable and uncontrollable variables that interplay in the management of D.R.R. The biased selection of institutions in this study, favouring projects which are successful in their D.R.R. efforts will provide insight into desirable components of D.R.R. strategies. These findings, together with an assessment of organizations attitudes towards user's needs vis-a-vis the D.R.R. process result in the proposal of a tentative model for an optimum dissemination strategy of research outputs. Such a strategy should contribute to a better integration of the opportunities and constraints of the research team with the user's needs expressed in terms of format and concept or the written documents, then access and distribution, cost and publicity/information.

The number of tools and media available to promote the D.D.R. is so diverse that we decided to limit the scope of the study to written documents published about the research projects since they represent the basis of the information required in any kind of dissemination.

Furthermore, this study does not intend to take into account the following aspects of the D.D.R. process:

. Because the selected projects were located in five different countries and because the nature as well as the peculiarities of the research organizations is so diverse (2 NGO's, 3 university research departments, one regional umbrella organization and one government research unit), there is no explicit comparative component in the analysis of the data.

. The study is not an evaluation or assessment of any of the projects, nor a judgement of their performance.

. The experimental nature of this case study hinders us from any claim of comprehensiveness or exhaustiveness.

. Interview data has not been cross checked against other sources. Interviewees were not challenged nor their responses questioned as the objective is to test their attitudes towards the D.R.R. and not to verify their responses.

II The Methodology

The study started with a bibliographical search, a survey of the literature and went on with the analysis of the documents on the selected projects available at IDRC headquarters and with the interviews of experts at the Centre in Ottawa and later on in Singapore. All projects were concerned with the development of applied research capacities.

II-1 The Selection of Projects

The study is based on seven (7) case studies of multi-phased projects, three in the area of post harvest strategies and four projects in education. The analysis has been conducted in the field through a five week mission in South East Asia.

The following criteria have been used to select projects:

1. multi-phased (with at least one phase fully completed) and,

2. in the opinion of the relevant program officer(s), the project ought to be successful with substantial results, especially in a number of formats (books, internal documents, pamphlets, conference proceedings, academic journals, newspapers, etc.) that were intended for external use.

The list of projects that have been selected is shown on Table 1.

TABLE 1 - LIST OF IDRC PROJECTS SELECTED

COUNTRY	INSTITUTION	PROJECT TITLE	AREA/FIELD OF STUDY	
			EDUCATION	POST-HARVEST
INDIA	College of Home Science Andhra Pradesh Agric. University	Household Grain Processing		X
INDONESIA	Institute for Social and Economic Research, Education and Information	Action Research Network for Education and Development	X	
NEPAL	Research Centre for Educational Innovation and Development (CERID) Tribhuvan University	Instructional Improvement in Primary Schools	X	
PHILIPPINES	Philippine Partnership for Development of Human Resources in Rural Areas (Phildhrra)	Participatory Research in Community Education	X	
THAILAND	National Education Commission (NEC)	Cost and Contributions of Higher Education	X	
THAILAND	Dept. of Agricultural Engineering, Faculty of Engineering, Khon Kaen University	Groundnut Shellers		X
REGIONAL (based in Thailand)	Asean Grain Post-Harvest Programme (AGPP)	Post-Harvest Systems Research and Development (South-East Asia)		X

The information gathering about those seven projects has been complemented by the inputs of three other projects through the following interviews:

During his field trip in Malaysia, John Drexhage was kind enough to meet with the director of Inspire in Malaysia and fill in the interview guide form.

In Thailand, I had the pleasure of visiting the national Institute of Development Administration and its president who is involved in the dissemination of research outputs.

While in Nepal, I had the opportunity to meet with the team of the Royal Nepal Academy of Science and Technology. Their project on Science popularization deals, in part, with the D.R.R. process.

II-2 The Interview Guide

The interview guide is a semi structured questionnaire which has been tested with IDRC officers both in Ottawa and in Singapore. It contains eight basic questions, selected from a preliminary list of 120, as the most relevant for the purpose of the study. (See Appendix I). The logistics of the interviews was handled with the very efficient support of the Singapore Regional Office. The interviews were conducted between the 8th of February and the 8th of March 1990.

The total number of persons interviewed is 46 experts in South East Asia as well as in Ottawa (See Appendix II).

The analysis drawn from the answers to the interview guide and its eight questions is centered around what we feel are two basic components of any D.D.R.: first, the strategic dimensions that deal with the approach to decision making (see Questions IV, V and VIII), and the involvement of users (see Question V); and second the operational dimensions that include the formatting of the written document (see Questions I, IV and V), and their delivery system (see Questions II, III, VI and VII).

III The Strategic Dimensions of the D.R.R.

A strategic framework provides an organization and/or its projects with a better understanding of the environmental forces that have an impact on the managerial attitudes and decision making process. It also helps in linking the organization with its stakeholders among which the users are the most important consumers of research outputs.

III-1 The Approach to Decision Making

The project director/managers and IDRC experts agree on the fact that most of the key decisions in the field of the D.D.R. are made according to the norms and criteria required by donor agencies. However, they also stress the influence of the constraints which research organizations face in their dissemination efforts. Let us examine these constraints before analyzing the answers to the questions that deal with the strategic concern of the decision process on target groups and the issue of quality control.

III-1-1 A Managerial Constraint: The Implicit Objectives of the Organization Versus the Explicit Objectives of the Research Project

The survival and sustainability of some small research NGOs or ill funded university research centres depend strictly on their ability to attract new funds and new projects. Since they are limited in staff and financial means, they tend to reduce the time and efforts they should devote to the D.D.R. activities. For such institutions the question arises, "what is your hidden agenda? Is it more research funds, stability, recognition or service?" (D. De Padua, 1989). The relative weakness and instability of these institutions forces them to place the priority on the implicit objectives of the organizations that are thwarting the fulfilment of the explicit objectives of the research project(s).

However, the larger research organizations that have opted for a project management approach do invest in the D.D.R. activities. This is the case in the Philippines, as Phildhrra succeeds in piggy-backing some of its dissemination efforts on the overall organization and/or through cost-sharing with several donor agencies.

III-1-2 An Organizational Constraint: The Attitudes of Researchers vis-à-vis the D.R.R.

Even though the quasi totality of interviewees agree with the statement that it is part of the duties and responsibilities of researchers as well as research institutions to ensure a proper dissemination of research results, most of them mentioned that they noticed some resistance to change on the part of individual

researchers to assume a more active and responsible role in the D.R.R. This perception is shared by many. For example, in the case of Nepal, "The passive role taken by scientists in the country in disseminating their knowledge" (S.B. Gurung and U.B. Amatya, 1987) has been noted. Furthermore, "Many scientists view their work as "an exclusive rite for an initiated few", not taking any responsibility or initiative in informing the public (M. Cronholm and R. Sandell, 1981). Others are reluctant to disseminate their results because they fear that someone else will pick up their idea and develop it further and faster. In any case, these attitudes reflect a "misconception of the publication role as a prestige tool rather than a communications media" (Samaha, 1984).

It is not our intention to discuss here the merits and drawbacks of the "publish or perish" system but most university professors, (hence researchers), are pressured by the necessity to constantly produce articles in refereed reviews. This is why "It has been suggested that the scientific journal serves the author well but the reader rather badly" (F. Lancaster and L. Smith, 1978). However, it is also important to recognize that any academic and/or professional peer review process can ensure quality and relevance in what is disseminated.

It is worth mentioning the exceptional role of Indian Agricultural Universities regarding professors duties. Since it is part of their institutional mandate to disseminate information to larger audiences researchers are expected to be active partners in the D.R.R. activities and this involvement is taken into account in their performance evaluation.

As for researchers working in organizations other than universities, their duties to disseminate their research outputs are better accepted as an integral part of their work load and correspond with the following proposal made by IDRC officers. "The technical researcher's responsibility to ensure that research results are made useful to, and are used by, action oriented agents is to be emphasized. The complete process from problem identification through to dissemination of a solution, adopted and used by the intended beneficiary is to be formalized" (M. Massey and O. Schmidt, 1989).

In all fairness to researchers, independently of their organizational setting, one should acknowledge that they may not have the authority to disseminate the research results. This additional managerial constraint is compounded by a set of environmental variables.

III-1-3 Some Environmental Constraints

When asked about some potential difficulties regarding a poor distribution infrastructure, legal bottlenecks at the import/export levels of printed material, lack of foreign currency, shortage of paper, unreliable suppliers, the interviewees all agreed on the fact that these external conditions were not much of a problem.

However, a few people mentioned some lack of skilled staff at the printing and editing levels. This situation can be explained by the quality and adequate quantity of the financing provided by IDRC, as stated by the project directors interviewed in South East Asia. In addition, the nature of the socio-economic environment of that part of the world is also responsible.

The issue of government constraints to the free flow of research information is very important as in many countries the concept of public funded research results being a "public good" is far from being a principle of government policy (interview with C. MacCormac). Scientific information, findings and/or recommendations may be perceived as sensitive in political terms or as an item of trade. "By regarding information as a strategic commodity, the free flow of information is regarded as possibly subverting the national interest either because the nation is flooded with too much information or because the results of local research are given away" (V. Rosenberg, 1981). The motivation for governmental control is expressed through various means. For example, in Indonesia NGOs need a publishing permit from the Department of Information if they want to publish "publicly". This hurdle has proven to be a lengthy as well as a costly process. In Thailand, the research results, managed by research government institutions, will be reviewed by the Secretary General before publication. In Malaysia the government will not allow unsuccessful results to be published.

It has been suggested that IDRC support to appropriate forms and structures of publications, for a range of audiences should reflect a policy of "freedom of information". That is, IDPC support to research publications should not be regarded as exclusive to a limited number of policy makers and bureaucrats but should place emphasis on the notion of encouraging public forums for open debate on the value and further use of verified research results which have been professionally peer reviewed (interview with C. MacCormac). It has also been suggested that IDRC should even insist on the publication of negative results for corporate memory purposes and to avoid the duplication of errors.

All of the above environmental constraints affect what will be published and have an impact on the decision making process.

III-1-4 The Decision Process on Target Groups and Quality Control

Even if the identification of target groups is spelled out in the projects financed by IDRC, its implementation varies in three different ways.

. A substantial minority of research leaders out in the field do not deliver various types of publication or research output to specific audiences. They in fact send the same document to different groups. The example of the thick final report prepared for IDRC and sent to all the "clients" of the research organization has been mentioned several times.

However, the majority of interviewees claim to practice this market segmentation in their dissemination strategy. Two approaches can be identified.

. They produce two or three types of written documents (newsletter and conference proceedings, for example) and send them to their respective "captive markets" such as the attendees of their conferences;

. the most dynamic organizations try to extend their notion of clients who may be interested in their research output and adapt the format to their specific needs. For example, a "comics" version of the findings is translated in the local language to facilitate the diffusion of the innovation among farmers and/or local entrepreneurs.

The quality control of the research results published and disseminated seems to be managed by the team, its leader and a diverse group of outsiders such as an editorial or a steering committee, a representative of government, government officials, inside or outside communication experts, conference attendees, opinion leaders, informal contacts or donor agencies. IDRC officers are solicited quite often by the research organization to be the outside quality controller. They are asked to do it not necessarily as a substitute to local researchers but as a neutral referee without whom a decision to accept or reject a manuscript for publication is culturally and/or politically impossible to make.

To maintain a constant quality, defined terms of internationally accepted standards and relevance to users are a necessary condition for the sustainability of any research organization. Academic standards of university professors apply to only half of the projects visited since most of the organizations involved are not linked to a university setting, consequently another set of professional standards apply. Although two different standards of quality exist each should be recognized as credible and legitimate as long as they are methodologically sound.

III-2 The Involvement of Users

Taking into account the a priori expectations of the users in the D.R.R. process appears to be a sound and logical postulate shared by IDRC officers and experts interviewed in the field and supported by numerous IDRC publications. However, there is another well accepted consensus that linking the user's needs and the D.R.R. is complex to manage. It is difficult to know precisely who the users are, their needs and to what extent they can be involved in the process.

III-2-1 A variety of Users

"Although collaboration among researchers is crucial to the research process, the links with the users of the results are also vital. This is particularly true in the case of applied research. In some cases the policy maker is the appropriate user; in others the farmer or the entire populace. IDRC has helped link researchers

with various types of users in various ways" ("With Our Hands", IDRC, 1986, #246). This list of actors and stakeholders of international development research projects does not claim to be exhaustive. It could be enlarged in the following way. "The clientele constitutes all individuals and groups who may be potentially impacted or who may impact. While local farmers or villagers are usually one of these important actors, it may also be important to direct attention to others, for example, organizational and institutional representatives that may affect long term outcomes" (L.M. Butler and R.O. Butler, 1987).

The interesting dimension of this last definition is that it implicitly deals with the differentiation one should make between the users and beneficiaries of a project. In a more explicit way, one could argue along schumpeterian terms that the users could be the consumers of the technological invention as compared to the beneficiaries who would become the consumers of the innovation. For example, the users of school books are the teachers and the beneficiaries are the students. In the post-harvest sector, the farmers can be considered the users of a dehuller that facilitates the transformation of groundnuts thanks to which the beneficiaries/consumers would buy and eat them more than before. The perception of beneficiaries as well as the potential impact of an innovation on them are two key factors that should be kept in mind by users when they implement any change in the D.R.R. process.

Once the users are identified and targeted, their specific group behaviour has to be better known because "there is a hierarchy of expectations from research with changing expectations as one moves from the individual scientists up to senior policy makers" (D. Daniels, 1987). Similarly the users needs follow a hierarchy marked by changing expectations.

III-2-2 Changing Needs

The users needs of research results depend on obvious factors such as the user's social/professional group or culture, his/her scientific background, the nature of the project and the "different stages or activities within the research/innovation process" (C. McLure, 1988).

Needs assessment therefore becomes an indispensable step in any D.R.R. strategy. It is however a highly difficult exercise due to the variety and changing nature of the research needs a project team has to face. At least two schools of thought can be put forward at the epistemological level. On the one hand, it is argued that "the consumers of research have a poorly defined picture of their own research and informational needs" (S. Gopinathan and H. Nielsen, 1988); on the other hand, some authors are convinced that "no one is better informed about their resource problem, aspirations and needs than the clientele themselves" (L.M. Butler and R.O. Butler, 1987). This difference in approach has been found among the interviewees in South East Asia and does reflect on the approach to involve the users in their D.R.R.

III-2-3 The Evolutionary Process of Users Involvement

As suggested by the three questions asked to interviewees (see Table 2), most of them do take into account the needs of the users of their research results in different ways.

. Almost all of them have incorporated, ex ante, the potential readers/users needs in the format and content of their document;

. about half of them have consulted their readers on their needs for the different documents, with the exception, in one instance, of technical reports. One of the project managers spoke about a plan to set up a user's survey with Australian and FAO funds. Some of the reactions were informal comments or unsolicited letters from the readers;

. about half the interviewees invited their readers to participate in the proposal and/or final version of the document in terms of both its usefulness and relevance. This was particularly the case for training manuals.

These answers to the interview guide lead us to propose a model of user's involvement in the D.R.R. process.

TABLE 2: Towards an Evolutionary Involvement of Users in the D.R.R.

Type of Involvement	Approach Used	Question in Interview
Anticipative	Ex ante, implicit consultation.	The potential needs have been incorporated ex ante.
Reactive	Feedback, ex post, formal consultation, survey research.	The potential users have been have been consulted on their needs.
Pro-active	Feedforward, participative tools.	The potential users are invited to participate in proposal and/or final version of document(s).

The three types of involvement suggested here are not mutually exclusive. Depending on the portfolio of documents published, a research organization may use one, two or all of the approaches mentioned in Table 2.

Table 2 describes an evolutionary process whereby the user's needs are taken into consideration from an ex ante to a full participation of the readers, from

a feedback to a feedforward approach. This last notion, discussed with R. Polestico, fits into the participative framework of Phildhrra. It encourages their members to ask for information in the first instance and then asks them to select it instead of having it dumped on them. The third stage consists of the production by clients of the content of the documents published. This is the feedforward process.

This process can adapt better to education projects than to post harvest undertakings because of the more technical content of the latter. For example, the AGPP is provided with raw data by the users/readers that need to be selected and synthesized by the team. Furthermore they face a challenge which is to generate the information from the people they are working with. The production problem remains: what comes first, the article/product or the need? In any case, the involvement of users in the D.R.R. requires an iterative and interactive process.

This feedforward process can be used as a needs assessment tool. It becomes, then, a participation mechanism as well as a training method in the diffusion of innovations that are developed from applied research projects.

IV The Operational Dimensions of the D.R.R.

The operational dimensions include, as previously mentioned in Paragraph II-2 the formatting of the written documents and their delivery system.

IV-1 The Formatting of the Written Documents

An impressive variety of written/printed documents are used to disseminate the research results. Apart from the obvious formats that we will discuss in a short while and which are part of the "classical" tools listed in Question 1 of the Interview Guide, the managers of projects visited have published handbooks, manuals, working papers, paintings, recipe booklets, leaflets, thesis, training manuals, reading materials, pedagogical documents, technical papers and case books.

. All of the interviewees do write annual or final reports since it is required by IDRC. It is interesting to note that the majority of them are translated into local languages. The number of copies printed varies between 25 and 1,000 with an average of about 500.

. Academic journals are used by most of the university related research organizations. Hence there is no surprise to find out that about half of the organizations of the sample are publishing some of their research results in that media. An interesting follow-up by one of the interviewees is that reprint series of those articles published in scientific journals could be implemented by all project teams.

. Publications in professional journals are undertaken by roughly half of the sample, in other words by the non university related research organizations. University researchers publish in academic journals as publication in professional journals is not as highly regarded.

. Published conference proceedings and lectures, workshops, seminars, as well as articles in newspapers, are used by a majority of project teams. In the case of A.G.P.P. one of their main tasks is to deliver the proceedings of their annual conference. It should be noted that IDRC funds a lot of workshops and seminars.

. A small minority publish a magazine/quarterly. One umbrella organization, A.G.P.P., does produce the Asean Grain Post Harvest Quarterly. Phildhrra uses their magazine to include the D.R.R. of their IDRC funded project(s).

. Articles in newspapers as well as flyers and leaflets are produced by a variety of research institutions. The number of copies printed varies between 800 and 3,000.

. Half of the sample produce newsletters/bulletins with an average of 200 copies published in English and in other languages such as Tagalog and Bahasa.

. Press releases are used by only one of the organizations interviewed.

As mentioned earlier, the needs of users/readers are changing over time and along the project life cycle. Hence different formats are used to serve those varying needs and circumstances. Since "the efficient dissemination of results of research and development can be considered as a special form of packaging problem" (Lancaster and Smith, 1978), an optimum mix of formats are presently being used in the South East Asian context. This is why "the way in which research is packaged is crucial to effective dissemination and subsequently to impact" (S. Gopinathan and H. Nielsen, 1988).

IV-2 The Delivery System

The delivery system of the written documents is made up of three basic components: their distribution networks, their price/cost and their information channels.

V-2-1 The Distribution Networks

Based on individuals and institutions, the distribution networks rely upon users, beneficiaries and/or various intermediaries.

. At the individual level, the researchers seem to be the first clients of the projects, representing, in one case, up to 75% of the mailing list. In another instance they accounted for only 10% as compared to 50% for the beneficiaries. An analysis of their mailing list confirms the fact that all the teams interviewed have a fairly extensive local and national distribution network; and most of them have strong international connections.

The variety of individuals reached by the different project teams is impressive. They include managers of financial institutions, local manufacturers, field workers, parents, administrators, university teachers, scholars, participants of conferences, visitors, extension workers, local manufacturers, civil servants and so on.

It is interesting to note that the conference proceedings, followed by the books/monographs and newsletters, then by the flyers/leaflets appear to be the most widely written documents disseminated.

. At the institutional level, the university libraries, faculties and departments as well as research organizations account, not surprisingly, for the majority of the clients. However, in one instance, the NGO community is the main receiver of written research outputs.

The network seems to be strongly based locally, nationally and internationally.

An interesting a priori paradox is worth mentioning. One would expect that the bookstores would be an important category of client. It does not seem to be the case either because they are perceived as irrelevant, inadequate or the team leaders have not thought about them for the dissemination of their written research outputs. The government departments in almost every case, and the private firms in most of the cases, do receive the documents sent by the research teams. The list of clients also includes donor agencies, foundations, banks, schools, cooperatives, food enterprises.

Among the intermediaries one can identify three groups: the supporters and the evaluators, (who serve as selective filters for the public or for society), as well as "the change agents, the farm extension agents, the sales crew and advertising people who either present information about or try to sell innovations, then too, there are the opinion leaders and tastemakers who also shape and direct the public's attitudes about creative developments" (M. Stein, 1983).

IV-2-2 <u>The Price/Cost of D.R.R.</u>

Since the cost of D.R.R. is built in the project proposals financed by IDRC, all of the interviewees, as already stated in Paragraph III-1-3, mentioned the adequate financing to correctly ensure a proper dissemination of research outputs.

A suggestion was made by the Nepalese head of the Research Centre for Education Innovation and Development: "the interest in applied research work is so high that they could increase very easily the number of institutions and individuals to whom they would send their publications all over the world. The costs involved become prohibitive if one wants to truly internationalize the mailing lists. This would obviously require additional money."

Most of the project teams visited are obviously very well connected with donor agencies. Some mentioned complementary funding of their IDRC financed projects by other agencies such as UNICEF, Asia Foundation, the Thai government and the Australian Aid Agency.

The price of the vast majority of the research outputs is not charged to customers. Some of the interviewees tend to favour, however, the exchange of publications with partners and/or counterparts.

The team leaders visited seem to have a project based approach to budgeting. That may explain why all of them, with one exception, do not share the cost of the D.R.R. with other projects in their organizations or with the overhead part of the organizational budget.

IV-2-3 The Information Channels

In most cases, the information about the document(s) published is managed as part of an institutional promotion strategy and through project based programs totally or partially financed by IDRC.

The use of a flyer on the research output sent to a mailing list does not seem to be a practice shared by the majority of the research teams. Some of them, however, use leaflets about the organization at large as a communication and promotion tool. Others may produce a flyer on a research output bu. do not send it to the members of their mailing list systematically.

Press conferences, radio and/or TV interviews, articles in newspapers are used as a promotion tool by about half of the project leaders interviewed.

Participation in workshops, seminars, conferences and/or lectures appears to be a promotional practice that better fits the culture of the research organization. All of them rely on word of mouth and personal contact and some are quite active in exhibitions, farmers day, silk festival, demonstrations or any other public technology/agricultural fairs.

The overall impression derived from the responses and attitudes expressed toward the questions dealing with the information strategy is that the organizations studied tend to be information centered and not user needs centered. That

is, among those of the managers that try to integrate user needs into the D.R.R. strategy most are doing it to feed an information system not to serve user's needs. This finding would lead us to share the following diagnosis. Most of the interviewees were "investigating information use from the perspective of an [implicit] information system or source rather than that of the user attempting to receive a particular information need" (C. McLure, 1988).

In theory a comprehensive approach to any promotion strategy of research undertakings should ideally follow the different stages of the project life cycle and adapt its content accordingly. "Dissemination begins at the outset of the work when information about the existence of the project is communicated to those who make up the potential audience for the results. During the project, there should be a continuous flow of information about the project. Detailed information will be requested by researchers in related fields, information required by the funder, current awareness information needed for the community at large and perhaps even news releases through local papers to inform members of the public about the work" (N. Moore, 1987).

However, in practice there should be concern about the public disclosure of research information during a project. Caution needs to be exercised as the premature and non-peer reviewed disclosure of research information could be harmful to individuals or lead other researchers to give up their own research activities as they may think others will produce the technology they had been working toward (interview with C. MacCormac).

While in theory the dissemination of research results occurs at the outset of the work and continues through to its completion, in practice this is not always the case. Furthermore, it has been suggested that a manageable degree of information is more desirable than too much information which could be overwhelming and distract from the information which is most relevant.

A last word on the information channels of the D.R.R process. On several occasions, IDRC Explore has been described as one of the best and unique communication tools available in the entire world to promote research results.

CONCLUSION

The D.R.R. is a complex process, with a fairly large number of controllable and uncontrollable variables, because "information cannot be treated like a brick being thrown from system to user but like clay the user can use for constructing his or her own sense" (B. Dervin, 1983).

Figure 1, (see next page), tries to capture and put into a model the essence of an optimum dissemination strategy of research results based on the findings of this study. Since any strategic analysis deals with environmental factors of the organization and with the time dimension we would like to stress the

importance of the latter. The essence of the notion of timeliness "is that research impact is not entirely dependent upon research quality but on the needs it meets at a certain time" (S. Gopinathan and H. Nielsen, 1988).

Present D.R.R. strategies seem to be working efficiently such as witnessed by the sample of research projects studied in this report. There is always room for improvement to ensure greater visibility and a better use of the outputs. A change in attitudes may be necessary for a subgroup of research managers who should look at and have a better understanding of the users and beneficiaries of their undertakings to ensure quality and relevance of the D.R.R. process vis-à-vis the needs of the main stakeholders of the project.

The case study has contributed to confirming the necessity to include the D.R.R. process in all research project proposals. All of the D.R.R. variables and main performance indicators should be built in the evaluation framework.

The exploratory and experimental nature of the case study has helped to increase the understanding, in South East Asia, of the D.R.R. of written documents based on the ex ante user's needs. In order to refine the proposed model, it would be interesting to extend this study to Africa and Latin America on the one hand and to complement it with a more comprehensive survey on the ex post perceptions of users on the other hand. Other areas of study such as Health Sciences could be selected, as well as the use of other media (audio visual, electronic, telecommunications).

It is our conviction, however, that the proposed analytical framework for the D.R.R. can be used effectively and be easily adapted to different environments, media and fields of study concerned.

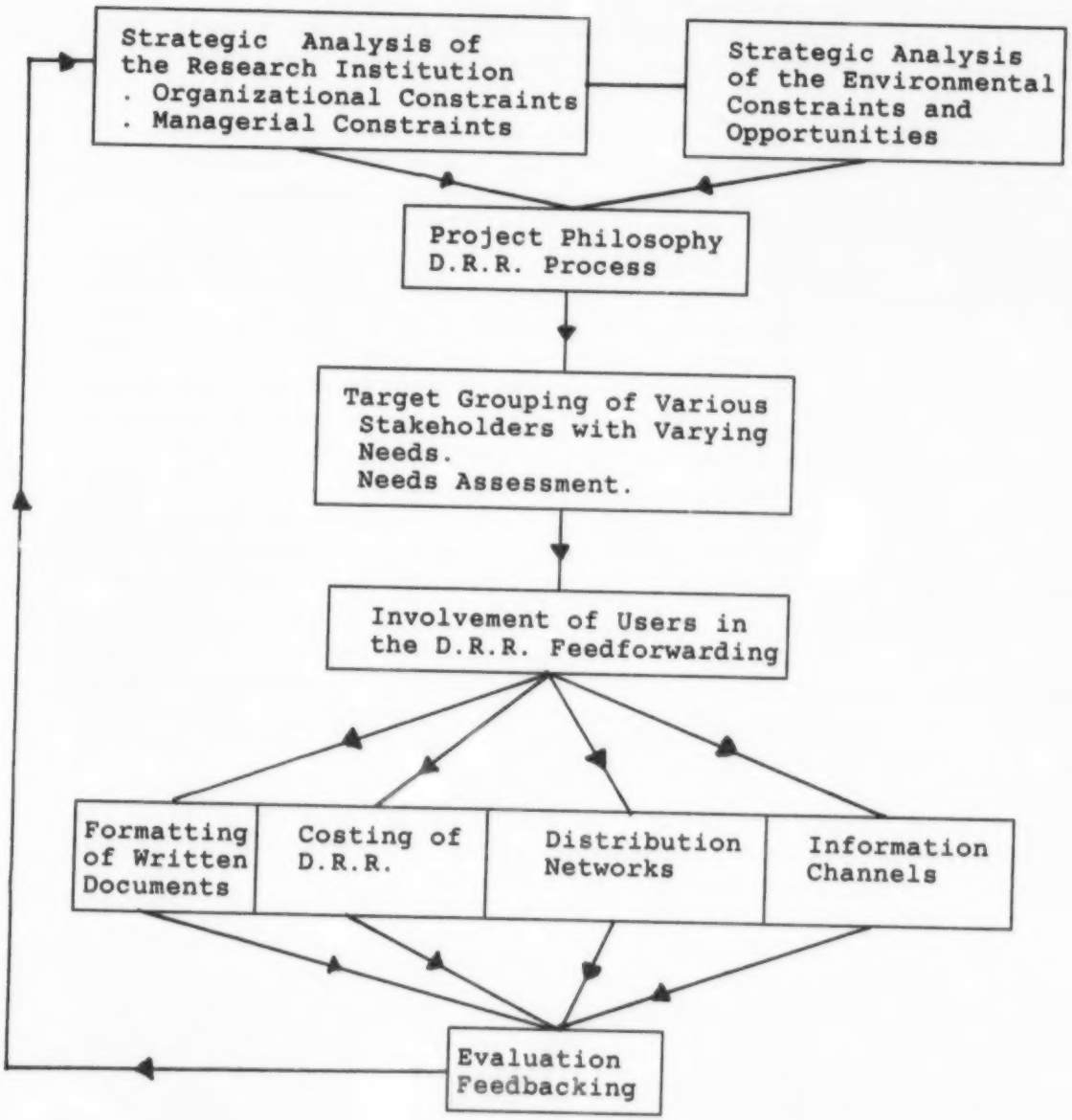
Strategic Analysis of the Research Institution
. Organizational Constraints
. Managerial Constraints
Strategic Analysis of the Environmental Constraints and Opportunities
Project Philosophy D.R.R. Process
Target Grouping of Various Stakeholders with Varying Needs.
Needs Assessment.
Involvement of Users in the D.R.R. Feedforwarding
Formatting of Written Documents
Costing of D.R.R.
Distribution Networks
Information Channels
Evaluation Feedbacking

Figure I. A Dissemination Strategy of Research Results

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APPENDIX I

THE INTERVIEW GUIDE

A CASE STUDY ON THE DISSEMINATION OF WRITTEN RESEARCH OUTPUTS BASED ON THE EX-ANTE USER'S NEEDS

INTERVIEW GUIDE

The objectives of this interview are twofold.

- to analyse the information flow from the producers to the users of written documents related to research results.
- to study the practice, at the level of the producer of written information, of the dissemination of research results in terms of user's needs.

This interview/study is not intended to be an evaluation or assessment of your project nor a judgement on its performance.

Georges Hénaul

Project Title: _____

Persons(s) interviewed: Name(s) _____

Position(s) _____

Date: _____

Location: _____

I. **What kind of written documentation, related to research outputs, has been produced by your organization and/or as part of the project financed by IDRC?**

	Total # since beginning of project	# of copies printed	Language chosen
a) Annual, narrative and/or technical report(s), final report			
b) Books, monographs			
c) Academic journals			
d) Professional journals			
e) Published conference proceedings			
f) Lectures, seminars, workshops			
g) Magazines			
h) Newspapers			
i) Flyers			
j) Newsletters			
k) Press Release			
l) Other, please specify			

II. **To <u>whom</u> were these copies/documents distributed?**

	Main Doc. (Ia - Il)	% by category of "clients"	Width of Distribution		
			local	national	int'l
a) Researchers					
b) Policy makers					
c) Practitioners					
d) Beneficiaries of projects					
e) Students					
f) General public					
g) Other, please specify					

III. To <u>what</u> institutions were they distributed?

	Main Doc. (Ia - Il)	% by category of institutions	Width of Dist.		
			local	nat.	int'l
a) Universities, Departments					
b) Universities, Libraries					
c) Research institutions					
d) Government departments					
e) Private firms					
f) NGO's					
g) Intermediaries/Bookstores					
h) Other, please specify					

IV. Who decides on the production of various documents related to research outputs?

	Res. Team	Team Leader	Director	Comm. expert		Other
				inside of proj.	outside of proj.	
a) Type (Ia - l)						
b) Quality control						
c) Identification of target groups (II & III)						
d) # copies						
e) Format						

V. How do you decide what will be published?

	Yes	No	Other
a) the dissemination strategy is part of the original design of the project			
b) you choose different formats for different target groups			
c) the quality control is determined by the academic standards of university professors . importance of referred article . PEER review of the content			
d) the number of copies is based on the analysis of market potential for the document published			
e) the potential readers/users needs have been incorporated, ex ante in the format and content of the document.			
f) the potential readers/users have been consulted on their needs for this document			
g) the potential readers/users have been invited to react to the proposal and/or final version of the document. (usefulness and relevance)			

VI. The cost of the printed document(s) have been financed by?

	Yes	No	Other
a) the project (built in the budget provided in the original contract with IDRC)			
b) External source of funds - please specify			
c) The price charged to users/institutions			
d) The organization in charge of the project			

VII. The information about the document published is managed?

	Yes	No	Other
a) through promotion strategy (the budget of which is incorporated in the project financed by IDRC)			
b) as part of a corporate/institutional promotion strategy			
c) through a flyer sent to the mailing list			
d) through press conferences, radio and/or TV interview			
e) articles in newspapers			
f) participation in workshops, seminars or conferences			
g) attend bookfairs			
h) word of mouth, personal contact			
i) other media - please specify			

VIII. What problems or constraints do you currently face related to the dissemination of research results?

	Major	Can be solved in the future
a) poor distribution/bookstore national infrastructure		
b) legal bottlenecks at the import/export levels of printed material		
c) financial difficulties vis-à-vis lack of foreign currency		
d) lack of skilled staff at the . printing level . editing level		
e) shortage of paper		
f) unreliable suppliers		
g) lack of funds (budgets) for the . printing . distribution . purchase . promotion		

h) it is not part of the dusties/responsibilities of researchers to ensure a proper dissemination of research results

i) it is not part of the duties/responsibilities of the research institutions to ensure a proper dissemination of research results

j) lack of time for the follow-up of project (dissemination phase) because of the necessity to devote more energy to obtain other contract (survival and sustainability of the institution/ research team)

k) other - please specify

Major	Can be solved in the future

APPENDIX II

LIST OF PERSONS INTERVIEWED

AT THE OTTAWA HEADQUARTERS OF IDRC

Cotterill, Ralph, Consultant

Daniels, Douglas, Director, Office of Planning and Evaluation (OPE)

Drexhage, John, Consultant

Graham, Michael, Associate Director, Management and Administration, Communications Division

McKee, Neil, Associate Director, Distribution and Dissemination, Communications Division

Schaeffer, Sheldon, Associate Director, Population, Education and Society Program

Smutylo, Terry, Senior Planning Officer, OPE

Stockwell, Susan, Associate Director, Scientific Publishing Program, Communications Division

Weber, Ed, Associate Director, Post-Production Systems, Agriculture, Food and Nutrition Sciences Division

IN THE FIELD

Berananda, Nitaya, Assistant Professor, Director, National Institute of Development Administration, Bangkok, Thailand

Boonyawiroj, Somsak, Program Officer, Social Sciences Division, IDRC, Singapore

Chinsuwan, Winit, Associate Professor, Department of Agricultural Engineering, Faculty of Engineering, Khon Kaen University, Khon Kaen, Thailand

Cirillo, Giovanni, Ambassador of Italy, Kathmandu, Nepal

Covanich, Amnaj, Programme Director, Asean Grain Post-Harvest Programme, Bangkok, Thailand

De Padua, Dante, Senior Programme Officer, Post Production Systems, Agriculture, Food and Nutrition Sciences Division, IDRC, Singapore

Frio, Antonio S., Development Communication Specialist, Asean Grain Post-Harvest Programme, Bangkok, Thailand

Ghani, Zainal Dato, Director, Project Inspire, Malaysia (interview conducted by John Drexhage)

Geervani, P., Dean of Home Science, Andhra Pradesh Agricultural University, Hyderabad, India

Hadimulyo, M., National President, Centre for People's Participation, Jakarta, Indonesia

Hanchanlash, Jingjai, Regional Director, IDRC, Singapore

Hein, Gordon R., Representative, The Asia Foundation, Jakarta, Indonesia

Hymavathi, Assistant Professor, College of Home Science, Andhra Pradesh Agricultural University, Hyderabad, India

Jitgarun, Kalayanee, Project Manager, National Education Commission, Bangkok, Thailand

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Krishnasreni, Suraweth, Head, Agricultural Machinery Research, Department of Agriculture, Bangkok, Thailand

MacCormac, Christopher W., Deputy Regional Director, IDRC, Singapore

Maier, Martina, Research Associate, CERID, Tribhuvan University, Kathmandu, Nepal

Mainali, Madhav, Executive Director, Research Center for Educational Innovation and Development, Tribhuvan University, Kathmandu, Nepal

Manilay, Alessandro A., Agricultural Economist, Asean Grain Post-Harvest Programme, Bangkok, Thailand

Mudaris, Masyhud, Program Manager, L3PES, Jakarta, Indonesia

Naewbanij, Jocelyn, Information Officer, Asean Grain Post-Harvest Programme, Bangkok, Thailand

Padmavathi, Field Assistant, College of Home Science, Andhra Pradesh Agricultural University, Hyderabad, India

Polestico, Rachel V., Research Officer, College of Agriculture, Xavier University, Cagayan de Oro City, Philippines

Pushpama, P., Programme Officer, Nutrition, IDRC, Singapore

Radhma-Krishna, Joshi, Director, IDRC Project (Phase II), CERID, Tribhuvan University, Kathmandu, Nepal

Ramirez, Marlene D., Program Officer, Philippine Partnership for the Development of Human Resources in Rural Areas, Quezon City, Philippines

Ratna, Rana, Vice Chancellor, RONAST, Kathmandu, Nepal

Rao, K.C., Full Professor, College of Home Science, Andhra Pradesh Agricultural University, Hyderabad, India

Sansanayuth, Sanong, Deputy Secretary General, National Education Commission, Bangkok, Thailand

Sarala, Field Assistant, College of Home Science, Andhra Pradesh Agricultural University, Hyderabad, India

Setapanich, Nongram, Director, Cost and Contribution of Higher Education Project, National Education Commission, Bangkok, Thailand

Taftazani, M., Coordinator, L3PES, Jakarta, Indonesia

Thapa, A.B., Director, Science Popularization Project, (IDRC), Associate Member, RONAST, Kathmandu, Nepal

Timtiampet, Sunisa, Project Manager, National Education Commission, Bangkok, Thailand

Vimala, Associate Professor, College of Home Science, Andhra Pradesh Agricultural University, Hydrabad, India

Xuto, Somsakdi, President, National Institute of Development Administration, Bangkok, Thailand